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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,386	02/20/2004	Larry F. Rhodes	4262-031384	6408

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EXAMINER

WALKE, AMANDA C

ART UNIT	PAPER NUMBER
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1752

MAIL DATE	DELIVERY MODE
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07/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/783,386

Applicant(s)

RHODES ET AL.

Examiner

Amanda C. Walke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 12-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 12-18, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 16-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poss et al (2004/0091813)

Poss et al disclose a fluorinated polymer which may comprise an oligomer such as a norbornene-type monomer (instant formula A) and a monomer falling within the scope of the instant formula E that appear to meet the instant claim limitations, and ([0009], [0010], [0034]-Rf(CH₂)_pCXf=Cyf; wherein X and Y are H, and Rf is perfluoralkyl). The oligomer may be polymerized employing any known method, including employing a Ni or Pd catalyst ([0035] and examples 5 and 6).

It would have been obvious to one of ordinary skill in the art to prepare the material of the reference choosing to employ the polymer having a norbornene-type monomer (A) and/or monomer of the instant formula E as instantly claimed.

3. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poss et al in view of Matyjazewski et al (6,512,060).

Poss et al has been discussed above, and teaches that a conventional polymerization method may be employed to form the oligomer [0035]. The reference fails to specifically teach the steps of a radical polymerization method, a conventional polymerization method.

Matyjaszewski et al disclose a method of preparing polymers and/or oligomers employing a radical polymerization method (column 5, lines 47-52). The method steps include: initiating a polymerization employing a monomer, initiator, and solvent, wherein the initiator can be any conventional radical initiator, including but not limited to, organic peroxides, organic persulfates, inorganic persulfates, peroxydisulfate, azo compounds, peroxycarbonates, perborates, percarbonates, perchlorates, peracids, hydrogen peroxide and mixtures thereof. These initiators can also optionally contain other functional groups that do not interfere with ATRP. Given the teachings of the references, it would have been obvious to one of ordinary skill in the art to prepare the oligomers of Poss et al by the conventional radical polymerization process of Matyjaszewski et al.

Response to Arguments

4. Applicant's arguments filed 4/23/2007 have been fully considered but they are not persuasive. Applicant has argued that the NBFA containing oligomer of the Poss et al reference is not actually an oligomer, but that the reference states that the monomer of the invention may be polymerized with additional monomers, polymers, oligomers including NBHFA. The reference is claiming a monomer that may be added to a material and polymerized by light or heat in the presence of other monomers, polymers, and/or oligomers, therefore the oligomer NBHFA may be added to the photoresist composition then polymerized during exposure. Therefore the oligomer compound itself exists and is added to the composition prior to

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polymerization and forming the larger polymer comprising it as a repeating group, therefore the rejection is maintained.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda C. Walke whose telephone number is 571-272-1337. The examiner can normally be reached on M-R 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amanda C Walke
Amanda C Walke
Primary Examiner
Art Unit 1752

ACW
July20, 2007